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WHAT IS CLAIMED IS:

1. A nonvolatile memory having a memory transistor and a reference memory transistor, comprising:

read means for electrically reading a threshold voltage of the memory transistor by using a threshold voltage of the reference memory transistor;

first write means for performing electrical write on the memory transistor until the threshold voltage of the memory transistor is higher than a first reference voltage; and

second write means for performing electrical write on the reference memory transistor until the threshold voltage of the reference memory transistor is higher than a second reference voltage.

2. A nonvolatile memory according to claim 1, wherein the first reference voltage is higher than the second reference voltage.

3. A nonvolatile memory according to claim 1, wherein the second reference voltage is higher than a threshold voltage of the reference memory transistor.

4. A nonvolatile memory according to claim 1, wherein each of the memory transistor and the reference memory transistor has an active region, a charge accumulating region and a control gate and the charge accumulating region is provided between the active region and the control gate and overlaps the control gate.

5. A nonvolatile memory according to claim 1, wherein each of the memory transistor and the reference memory transistor has an active region, a floating gate and a control gate and the floating gate is provided between the active region and the control gate and overlaps the control gate.

6. A nonvolatile memory according to claim 1, wherein each of the memory transistor and the reference memory transistor has an active region, a nitride film and a

control gate and the nitride film is provided between the active region and the control gate and overlaps the control gate.

7. A nonvolatile memory according to claim 1, wherein each of the memory transistor and the reference memory transistor has an active region, a cluster layer and a control gate and the cluster is provided between the active region and the control gate and overlaps the control gate.

8. A nonvolatile memory according to claim 1, wherein the memory transistor and the reference memory transistor store multilevel information.

9. An electronic apparatus comprising the nonvolatile memory according to claim 1 wherein the electronic apparatus is selected the group comprising a light emitting device, digital still camera, a notebook type personal computer, a mobile computer, a mobile image reconstruction apparatus, a goggle type display, a video camera, and a mobile telephone.

10. A nonvolatile memory having a memory transistor and a reference memory transistor, comprising:

first write means for performing electrical write on the memory transistor until a first threshold voltage of the memory transistor, which is read based on a reference voltage of the reference memory transistor, and a second threshold voltage of the memory transistor, which is read based on a first reference voltage of the reference memory transistor belong to a distribution of threshold voltages for same information; and

second write means for performing electrical write on the reference memory transistor until a threshold voltage of the reference memory transistor is higher than a second reference voltage.

11. A nonvolatile memory according to claim 10, wherein the first reference voltage is higher than the second reference voltage.

12. A nonvolatile memory according to claim 10, wherein the second reference voltage is higher than a threshold voltage of the reference memory transistor.

13. A nonvolatile memory according to claim 10, wherein each of the memory transistor and the reference memory transistor has an active region, a charge accumulating region and a control gate and the charge accumulating region is provided between the active region and the control gate and overlaps the control gate.

14. A nonvolatile memory according to claim 10, wherein each of the memory transistor and the reference memory transistor has an active region, a floating gate and a control gate and the floating gate is provided between the active region and the control gate and overlaps the control gate.

15. A nonvolatile memory according to claim 10, wherein each of the memory transistor and the reference memory transistor has an active region, a nitride film and a control gate and the nitride film is provided between the active region and the control gate and overlaps the control gate.

16. A nonvolatile memory according to claim 10, wherein each of the memory transistor and the reference memory transistor has an active region, a cluster layer and a control gate and the cluster is provided between the active region and the control gate and overlaps the control gate.

17. A nonvolatile memory according to claim 10, wherein the memory transistor and the reference memory transistor store multilevel information.

18. An electronic apparatus comprising the nonvolatile memory according to claim 10 wherein the electronic apparatus is selected the group comprising a light emitting device, digital still camera, a notebook type personal computer, a mobile

computer, a mobile image reconstruction apparatus, a goggle type display, a video camera, and a mobile telephone.

19. A nonvolatile memory having a unit cell in which multiple memory transistors are connected in series and a reference memory transistor, comprising:

read means for electrically reading a threshold voltage of the memory transistor by using a threshold voltage of the reference memory transistor;

first write means for performing electrical write on the memory transistor until the threshold voltage of the memory transistor is higher than a first reference voltage; and

second write means for performing electrical write on the reference memory transistor until the threshold voltage of the reference memory transistor is higher than a second reference voltage.

20. A nonvolatile memory according to claim 19, wherein the first reference voltage is higher than the second reference voltage.

21. A nonvolatile memory according to claim 19, wherein the second reference voltage is higher than a threshold voltage of the reference memory transistor.

22. A nonvolatile memory according to claim 19, wherein each of the memory transistor and the reference memory transistor has an active region, a charge accumulating region and a control gate and the charge accumulating region is provided between the active region and the control gate and overlaps the control gate.

23. A nonvolatile memory according to claim 19, wherein each of the memory transistor and the reference memory transistor has an active region, a floating gate and a control gate and the floating gate is provided between the active region and the control gate and overlaps the control gate.

24. A nonvolatile memory according to claim 19, wherein each of the memory

transistor and the reference memory transistor has an active region, a nitride film and a control gate and the nitride film is provided between the active region and the control gate and overlaps the control gate.

25. A nonvolatile memory according to claim 19, wherein each of the memory transistor and the reference memory transistor has an active region, a cluster layer and a control gate and the cluster is provided between the active region and the control gate and overlaps the control gate.

26. A nonvolatile memory according to claim 19, wherein the memory transistor and the reference memory transistor store multilevel information.

27. An electronic apparatus comprising the nonvolatile memory according to claim 19 wherein the electronic apparatus is selected the group comprising a light emitting device, digital still camera, a notebook type personal computer, a mobile computer, a mobile image reconstruction apparatus, a goggle type display, a video camera, and a mobile telephone.

28. A nonvolatile memory having a unit cell in which multiple memory transistors are connected in series and a reference memory transistor, comprising:

first write means for performing electrical write on the memory transistor until a first threshold voltage of the memory transistor, which is read from a reference voltage of the reference memory transistor, and a second threshold voltage of the memory transistor, which is read from a first reference voltage of the reference memory transistor belong to a distribution of threshold voltages for same information; and

second write means for performing electrical write on the reference memory transistor until a threshold voltage of the reference memory transistor is higher than a second reference voltage.

29. A nonvolatile memory according to claim 28, wherein the first reference

voltage is higher than the second reference voltage.

30. A nonvolatile memory according to claim 28, wherein the second reference voltage is higher than a threshold voltage of the reference memory transistor.

31. A nonvolatile memory according to claim 28, wherein each of the memory transistor and the reference memory transistor has an active region, a charge accumulating region and a control gate and the charge accumulating region is provided between the active region and the control gate and overlaps the control gate.

32. A nonvolatile memory according to claim 28, wherein each of the memory transistor and the reference memory transistor has an active region, a floating gate and a control gate and the floating gate is provided between the active region and the control gate and overlaps the control gate.

33. A nonvolatile memory according to claim 28, wherein each of the memory transistor and the reference memory transistor has an active region, a nitride film and a control gate and the nitride film is provided between the active region and the control gate and overlaps the control gate.

34. A nonvolatile memory according to claim 28, wherein each of the memory transistor and the reference memory transistor has an active region, a cluster layer and a control gate and the cluster is provided between the active region and the control gate and overlaps the control gate.

35. A nonvolatile memory according to claim 28, wherein the memory transistor and the reference memory transistor store multilevel information.

36. An electronic apparatus comprising the nonvolatile memory according to claim 28 wherein the electronic apparatus is selected the group comprising a light

emitting device, digital still camera, a notebook type personal computer, a mobile computer, a mobile image reconstruction apparatus, a goggle type display, a video camera, and a mobile telephone.

37. A nonvolatile memory having a memory transistor, a reference memory transistor and a timer, comprising:

first write means for performing electrical write on the memory transistor for each time when an elapsed time measured by the timer reaches an arbitrarily preset time until a threshold voltage of the memory transistor, which is read based on a reference voltage of the reference memory transistor is higher than a first reference voltage; and

second write means for performing electrical write on the reference memory transistor until a threshold voltage of the reference memory transistor is higher than a second reference voltage.

38. A nonvolatile memory according to claim 37, wherein the first reference voltage is higher than the second reference voltage.

39. A nonvolatile memory according to claim 37, wherein the second reference voltage is higher than a threshold voltage of the reference memory transistor.

40. A nonvolatile memory according to claim 37, wherein each of the memory transistor and the reference memory transistor has an active region, a charge accumulating region and a control gate and the charge accumulating region is provided between the active region and the control gate and overlaps the control gate.

41. A nonvolatile memory according to claim 37, wherein each of the memory transistor and the reference memory transistor has an active region, a floating gate and a control gate and the floating gate is provided between the active region and the control gate and overlaps the control gate.

42. A nonvolatile memory according to claim 37, wherein each of the memory transistor and the reference memory transistor has an active region, a nitride film and a control gate and the nitride film is provided between the active region and the control gate and overlaps the control gate.

43. A nonvolatile memory according to claim 37, wherein each of the memory transistor and the reference memory transistor has an active region, a cluster layer and a control gate and the cluster is provided between the active region and the control gate and overlaps the control gate.

44. A nonvolatile memory according to claim 37, wherein the memory transistor and the reference memory transistor store multilevel information.

45. An electronic apparatus comprising the nonvolatile memory according to claim 37 wherein the electronic apparatus is selected the group comprising a light emitting device, digital still camera, a notebook type personal computer, a mobile computer, a mobile image reconstruction apparatus, a goggle type display, a video camera, and a mobile telephone.

46. A method of driving a nonvolatile memory having a memory transistor and a reference memory transistor, comprising:

electrically reading a threshold voltage of the memory transistor by using a threshold voltage of the reference memory transistor;

performing electrical write on the memory transistor until the threshold voltage of the memory transistor is higher than a first reference voltage; and

performing electrical write on the reference memory transistor until the threshold voltage of the reference memory transistor is higher than a second reference voltage.

47. A method of driving a nonvolatile memory according to claim 46, wherein

the first reference voltage is higher than the second reference voltage.

48. A method of driving a nonvolatile memory according to claim 46, wherein the second reference voltage is higher than a threshold voltage of the reference memory transistor.

49. A method of driving a nonvolatile memory according to claim 46, wherein each of the memory transistor and the reference memory transistor has an active region, a charge accumulating region and a control gate and the charge accumulating region is provided between the active region and the control gate and overlaps the control gate.

50. A method of driving a nonvolatile memory according to claim 46, wherein each of the memory transistor and the reference memory transistor has an active region, a floating gate and a control gate and the floating gate is provided between the active region and the control gate and overlaps the control gate.

51. A method of driving a nonvolatile memory according to claim 46, wherein each of the memory transistor and the reference memory transistor has an active region, a nitride film and a control gate and the nitride film is provided between the active region and the control gate and overlaps the control gate.

52. A method of driving a nonvolatile memory according to claim 46, wherein each of the memory transistor and the reference memory transistor has an active region, a cluster layer and a control gate and the cluster layer is provided between the active region and the control gate and overlaps the control gate.

53. A method of driving a nonvolatile memory according to claim 46, wherein the memory transistor and the reference memory transistor store multilevel information.

54. A method of driving a nonvolatile memory according to claim 46, wherein

the a nonvolatile memory is incorporated into an electronic apparatus selected from a light emitting device, digital still camera, a notebook type personal computer, a mobile computer, a mobile image reconstruction apparatus, a goggle type display, a video camera, and a mobile telephone.

55. A method of driving a nonvolatile memory having a memory transistor and a reference memory transistor, comprising:

performing electrical write on the memory transistor until a first threshold voltage of the memory transistor, which is read based on a reference voltage of the reference memory transistor, and a second threshold voltage of the memory transistor, which is read based on a first reference voltage of the reference memory transistor belong to a distribution of threshold voltages for same information; and

performing electrical write on the reference memory transistor until a threshold voltage of the reference memory transistor is higher than a second reference voltage.

56. A method of driving a nonvolatile memory according to claim 55, wherein the first reference voltage is higher than the second reference voltage.

57. A method of driving a nonvolatile memory according to claim 55, wherein the second reference voltage is higher than a threshold voltage of the reference memory transistor.

58. A method of driving a nonvolatile memory according to claim 55, wherein each of the memory transistor and the reference memory transistor has an active region, a charge accumulating region and a control gate and the charge accumulating region is provided between the active region and the control gate and overlaps the control gate.

59. A method of driving a nonvolatile memory according to claim 55, wherein each of the memory transistor and the reference memory transistor has an active region, a floating gate and a control gate and the floating gate is provided between the active region

and the control gate and overlaps the control gate.

60. A method of driving a nonvolatile memory according to claim 55, wherein each of the memory transistor and the reference memory transistor has an active region, a nitride film and a control gate and the nitride film is provided between the active region and the control gate and overlaps the control gate.

61. A method of driving a nonvolatile memory according to claim 55, wherein each of the memory transistor and the reference memory transistor has an active region, a cluster layer and a control gate and the cluster layer is provided between the active region and the control gate and overlaps the control gate.

62. A method of driving a nonvolatile memory according to claim 55, wherein the memory transistor and the reference memory transistor store multilevel information.

63. A method of driving a nonvolatile memory according to claim 55, wherein the a nonvolatile memory is incorporated into an electronic apparatus selected from a light emitting device, digital still camera, a notebook type personal computer, a mobile computer, a mobile image reconstruction apparatus, a goggle type display, a video camera, and a mobile telephone.

64. A method of driving a nonvolatile memory having a unit cell in which multiple memory transistors are connected in series and a reference memory transistor, comprising:

electrically reading a threshold voltage of the memory transistor by using a threshold voltage of the reference memory transistor;

performing electrical write on the memory transistor until the threshold voltage of the memory transistor is higher than a first reference voltage; and

performing electrical write on the reference memory transistor until the threshold voltage of the reference memory transistor is higher than a second reference

voltage.

65. A method of driving a nonvolatile memory according to claim 64, wherein the first reference voltage is higher than the second reference voltage.

66. A method of driving a nonvolatile memory according to claim 64, wherein the second reference voltage is higher than a threshold voltage of the reference memory transistor.

67. A method of driving a nonvolatile memory according to claim 64, wherein each of the memory transistor and the reference memory transistor has an active region, a charge accumulating region and a control gate and the charge accumulating region is provided between the active region and the control gate and overlaps the control gate.

68. A method of driving a nonvolatile memory according to claim 64, wherein each of the memory transistor and the reference memory transistor has an active region, a floating gate and a control gate and the floating gate is provided between the active region and the control gate and overlaps the control gate.

69. A method of driving a nonvolatile memory according to claim 64, wherein each of the memory transistor and the reference memory transistor has an active region, a nitride film and a control gate and the nitride film is provided between the active region and the control gate and overlaps the control gate.

70. A method of driving a nonvolatile memory according to claim 64, wherein each of the memory transistor and the reference memory transistor has an active region, a cluster layer and a control gate and the cluster layer is provided between the active region and the control gate and overlaps the control gate.

71. A method of driving a nonvolatile memory according to claim 64, wherein

the memory transistor and the reference memory transistor store multilevel information.

72. A method of driving a nonvolatile memory according to claim 64, wherein the a nonvolatile memory is incorporated into an electronic apparatus selected from a light emitting device, digital still camera, a notebook type personal computer, a mobile computer, a mobile image reconstruction apparatus, a goggle type display, a video camera, and a mobile telephone.

73. A method of driving a nonvolatile memory having a unit cell in which multiple memory transistors are connected in series and a reference memory transistor, comprising:

performing electrical write on the memory transistor until a first threshold voltage of the memory transistor, which is read from a reference voltage of the reference memory transistor, and a second threshold voltage of the memory transistor, which is read from a first reference voltage of the reference memory transistor belong to a distribution of threshold voltages for same information; and

performing electrical write on the reference memory transistor until a threshold voltage of the reference memory transistor is higher than a second reference voltage.

74. A method of driving a nonvolatile memory according to claim 73, wherein the first reference voltage is higher than the second reference voltage.

75. A method of driving a nonvolatile memory according to claim 73, wherein the second reference voltage is higher than a threshold voltage of the reference memory transistor.

76. A method of driving a nonvolatile memory according to claim 73, wherein each of the memory transistor and the reference memory transistor has an active region, a charge accumulating region and a control gate and the charge accumulating region is provided between the active region and the control gate and overlaps the control gate.

77. A method of driving a nonvolatile memory according to claim 73, wherein each of the memory transistor and the reference memory transistor has an active region, a floating gate and a control gate and the floating gate is provided between the active region and the control gate and overlaps the control gate.

78. A method of driving a nonvolatile memory according to claim 73, wherein each of the memory transistor and the reference memory transistor has an active region, a nitride film and a control gate and the nitride film is provided between the active region and the control gate and overlaps the control gate.

79. A method of driving a nonvolatile memory according to claim 73, wherein each of the memory transistor and the reference memory transistor has an active region, a cluster layer and a control gate and the cluster layer is provided between the active region and the control gate and overlaps the control gate.

80. A method of driving a nonvolatile memory according to claim 73, wherein the memory transistor and the reference memory transistor store multilevel information.

81. A method of driving a nonvolatile memory according to claim 73, wherein the a nonvolatile memory is incorporated into an electronic apparatus selected from a light emitting device, digital still camera, a notebook type personal computer, a mobile computer, a mobile image reconstruction apparatus, a goggle type display, a video camera, and a mobile telephone.

82. A method of driving a nonvolatile memory having a memory transistor, a reference memory transistor and a timer, comprising:

performing electrical write on the memory transistor for each time when an elapsed time measured by the timer reaches an arbitrarily preset time until a threshold voltage of the memory transistor, which is read based on a reference voltage of the

reference memory transistor, is higher than a first reference voltage; and

performing electrical write on the reference memory transistor until a threshold voltage of the reference memory transistor is higher than a second reference voltage.

83. A method of driving a nonvolatile memory according to claim 82, wherein the first reference voltage is higher than the second reference voltage.

84. A method of driving a nonvolatile memory according to claim 82, wherein the second reference voltage is higher than a threshold voltage of the reference memory transistor.

85. A method of driving a nonvolatile memory according to claim 82, wherein each of the memory transistor and the reference memory transistor has an active region, a charge accumulating region and a control gate and the charge accumulating region is provided between the active region and the control gate and overlaps the control gate.

86. A method of driving a nonvolatile memory according to claim 82, wherein each of the memory transistor and the reference memory transistor has an active region, a floating gate and a control gate and the floating gate is provided between the active region and the control gate and overlaps the control gate.

87. A method of driving a nonvolatile memory according to claim 82, wherein each of the memory transistor and the reference memory transistor has an active region, a nitride film and a control gate and the nitride film is provided between the active region and the control gate and overlaps the control gate.

88. A method of driving a nonvolatile memory according to claim 82, wherein each of the memory transistor and the reference memory transistor has an active region, a cluster layer and a control gate and the cluster layer is provided between the active region and the control gate and overlaps the control gate.

89. A method of driving a nonvolatile memory according to claim 82, wherein the memory transistor and the reference memory transistor store multilevel information.

90. A method of driving a nonvolatile memory according to claim 82, wherein the a nonvolatile memory is incorporated into an electronic apparatus selected from a light emitting device, digital still camera, a notebook type personal computer, a mobile computer, a mobile image reconstruction apparatus, a goggle type display, a video camera, and a mobile telephone.